

09/758,775

PATENT

IN THE CLAIMS:

1-7. (Cancelled).

8-21. (Withdrawn from consideration in this application).

22. (Canceled).

<sup>1</sup>  
23. (Currently Amended) The light valve of claim ~~22 42~~ wherein said liquid crystal cell is an LCoS cell.

<sup>4</sup> 24. (Currently Amended) The light valve of claim ~~22 42~~ wherein light incident to the light valve is between ~~100~~ 10° and ~~200~~ 20° off-axis.

<sup>2</sup>  
25. (Currently Amended) The light valve of claim ~~23~~ wherein light incident to the light valve is ~~150~~ 15° off-axis.

<sup>1</sup>  
26. (Currently Amended) The light valve of claim ~~22 42~~ wherein said liquid crystal cell has a twist angle ranging from ~~400~~ 40° to ~~650~~ 65°.

<sup>5</sup>  
27. (Original) The light valve of claim ~~26~~ wherein said liquid crystal cell is in twisted nematic mode.

<sup>1</sup>  
28. (Currently Amended) The light valve of claim ~~22 42~~ wherein the horizontal axis of said polarizer and the horizontal axis of said analyzer are ~~900~~ 90° apart.

29. (Canceled).

<sup>1</sup>  
20. (Currently Amended) The light valve of claim ~~29 42~~ wherein said retarder has a retardation value centered at 530 nanometers and a retardation angle centered at 89° in a red band of light.

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31. (Canceled).

10 ~~32~~ <sup>9</sup> (Currently Amended) The light valve of claim ~~31~~ <sup>9</sup> wherein said retarder has a retardation value centered at 460 nanometers and a retardation angle centered at 89° in a green band of light.

33. (Canceled).

12 ~~34~~ <sup>11</sup> (Currently Amended) The light valve of claim ~~33~~ <sup>11</sup> wherein said first retarder has a retardation value centered at 370 nanometers and a retardation angle centered at ~~890~~ <sup>89</sup>° in a blue band of light.

35. (Withdrawn from consideration in this application).

36-41. (Canceled).

1 ~~42~~ (New) A light valve for use in high contrast reflective microdisplays, comprising:

a twisted nematic mode reflective liquid crystal cell;

a color filter positioned to accept non-polarized light incident to the light valve;

a linear polarizer positioned between said color filter and said liquid crystal cell to impart a polarization to the incident light;

an analyzer positioned in the path of the light reflected by said liquid crystal cell; and

a retarder positioned between said liquid crystal cell and said analyzer in the path of the light reflected by said liquid crystal cell, the retarder having a retardation value ranging from 430 nanometers to 630 nanometers to reduce ellipticity of the reflected light and a retardation angle ranging from 87.6° to 90.2° in a red band of light;

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wherein light incident to the light valve is generally off-axis to said liquid crystal cell, and whereby polarization axes of light incident and light reflected are generally matched when the liquid crystal cell is in an off state.

9 ~~43~~. (New) A light valve for use in high contrast reflective microdisplays, comprising:

a twisted nematic mode reflective liquid crystal cell;  
a color filter positioned to accept non-polarized light incident to the light valve;  
a linear polarizer positioned between said color filter and said liquid crystal cell to impart a polarization to the incident light;  
an analyzer positioned in the path of the light reflected by said liquid crystal cell; and

a retarder positioned between said liquid crystal cell and said analyzer in the path of the light reflected by said liquid crystal cell, the retarder having a retardation value ranging from 350 nanometers to 550 nanometers to reduce ellipticity of the reflected light and a retardation angle ranging from 87.5° to 90.5° in a green band of light;

wherein light incident to the light valve is generally off-axis to said liquid crystal cell, and whereby polarization axes of light incident and light reflected are generally matched when the liquid crystal cell is in an off state.

11 ~~44~~. (New) A light valve for use in high contrast reflective microdisplays, comprising:

a twisted nematic mode reflective liquid crystal cell;  
a color filter positioned to accept non-polarized light incident to the light valve;  
a linear polarizer positioned between said color filter and said liquid crystal cell to impart a polarization to the incident light;  
an analyzer positioned in the path of the light reflected by said liquid crystal cell;

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and a retarder positioned between said liquid crystal cell and said analyzer in the path of the light reflected by said liquid crystal cell, the retarder having a retardation value ranging from 280 nanometers to 460 nanometers to reduce ellipticity of the reflected light and a retardation angle ranging from  $87.7^\circ$  to  $90.3^\circ$  in a blue band of light;

wherein light incident to the light valve is generally off-axis to said liquid crystal cell, and whereby polarization axes of light incident and light reflected are generally matched when the liquid crystal cell is in an off state.